HEALTHCARE
Imaging >
Global Support Operations

Installation Planning

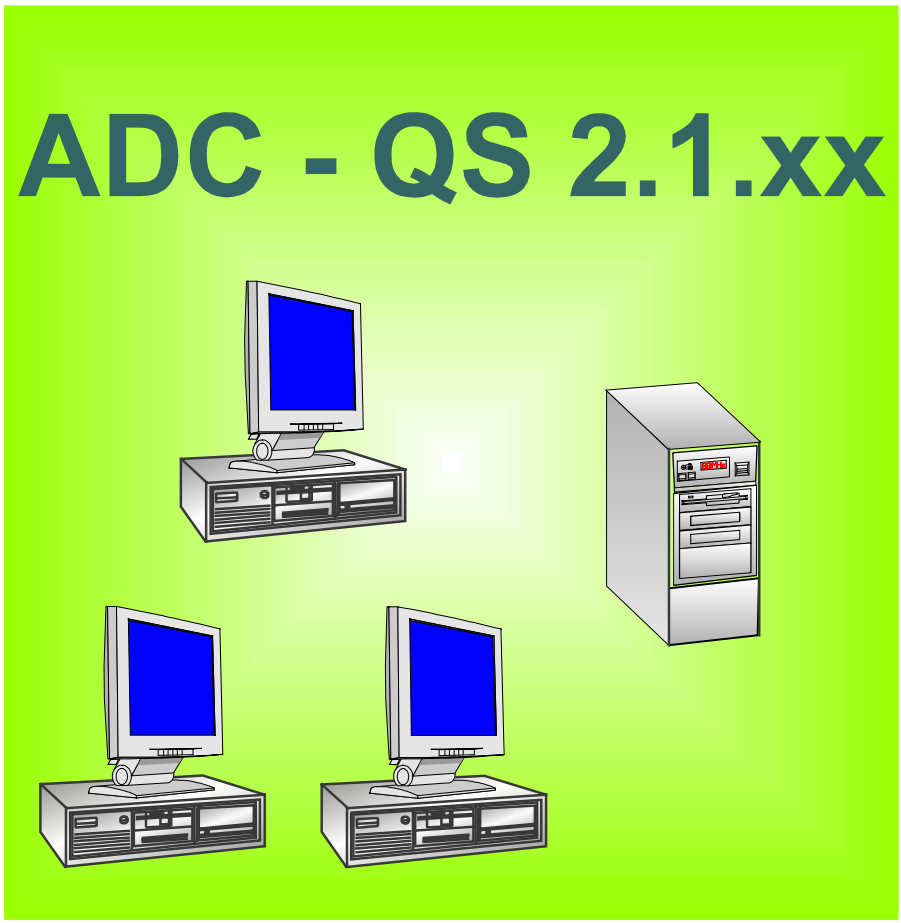
Order No.: DD+DIS136.02E

1 Piece VFGV4 MA1

ADC Quality System 2.1.xx

Type 4406/421

1st Edition



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AGFA

Caution:

This system uses high voltage. Please consider the respective safety regulations.

These instructions describe adjustments and routines which must only be performed by qualified technical personnel.

Note:

Electrical repairs and connections must only be performed by a qualified electrician.

Mechanical repairs and connections must only be performed by a qualified technician.

CE Declaration:

The CE Declaration (CE Conformity) becomes invalid if the product is changed without explicit consent of the manufacturer! This applies to all parts, not only to safety elements.

We reserve the right to technical changes

Chapter 11:

List of contents

1 General 1

1.1 Safety Instructions 1

1.2 Safety Regulations 1

1.2.1 Safety Regulations for System Components 2
1.2.2 Safety Regulations for ID Viewer (ID Console and Rack, ID Tablet, ADC QS Client with ID Viewer Software) 2
1.2.3 Safety Regulations for ID Viewer Monitor 2
1.2.4 Safety Regulations for ID Viewer Console 3

1.3 ADC QS System Overview 4

1.4 Transport Path 5

2 ID-Viewer 5

2.1 Machine Dimensions ID-Viewer 5

2.2 Machine Dimensions ID Viewer with Console and Cassette Rack 6

2.3 Technical Data of the ID Viewer 6

3 ADC QS Client Station 8

3.1 Technical Data of the ADC QS Client Station 8

3.1.1 Power Consumption 8
3.1.2 Electrical Connections 8
3.1.3 Environmental Requirements for the PC: 8
3.1.4 Packing Dimensions 8
3.1.5 Weights 8

4 ADC QS Server Station 9

4.1 Technical Data of the ADC QS Server Station 9

4.1.1 Power Consumption 9
4.1.2 Electrical Connections 9
4.1.3 Connection Cables of the Individual System Components 9
4.1.4 Packing Dimensions 9
4.1.5 Weights 9

5 GUI - Templates for ID-Viewer 10

5.1 Mouse controlled Templates 10

5.2 Touch Panel controlled Templates 13

6 Connection to HIS/RIS System 14

7 Monitors 15
7.1 Correct Position of Monitors 15
8 Installation Planning: Checklist 16
8.1 Checklist 17
9 Form to fill in the Network Parameters 18

1 General

This document describes the Installation Planning of the ADC QS ID Viewer, the ADC QS Client Station and the ADC QS Server Station.
For the Installation Planning of the ADC Digitizers, please refer to the following documents:

ADC Compact Digitizer:	DD+DIS288.00E
ADC Compact Plus Digitizer:	DD+DIS025.01E
ADC Solo Digitizer:	DD+DIS217.98E

1.1 Safety Instructions

Electrical connections and repairs must only be made by authorized electricians.
Mechanical connections and repairs must only be made by authorized technicians.

For technical data of the commercially available devices as PCs and Workstations please refer to the corresponding user manuals!

1.2 Safety Regulations

The system component ID Tablet is tested in compliance with:

- IEC 950/EN 60950: 1992; A1: 1993; A2: 1993; A3: 1995; A4: 1997.
- UL1950, 3rd edition
- CSA 22.2 No. 950-95, 3rd edition.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communication.

It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

1.2.1 Safety Regulations for System Components

When operating the ADC QS System, you should always make sure that the following safety checks have been taken before bringing the System into use:

- Do not bypass or disable any incorporated safety features.
- Always disconnect any components of the ADC QS System from the mains before carrying out service or maintenance.

AGFA-Gevaert reserves the right to modify and improve their equipment in order to adapt them to the latest technical standards.

There are no user-serviceable parts inside the ADC QS Server Station or the ADC digitizer.

Troubleshooting, as well as electrical or mechanical repairs, may only be carried out by qualified service personnel.

Perform no other operations on the ADC QS Server Station or the ADC digitizer than the ones described in the user manuals.

The only reliable means of protecting the Server Station against blackouts or other potentially damaging events such as power surges and brownouts, is to use the optionally available battery-backed uninterruptible power supply (UPS). The UPS (recommended option) ensures that the electrical flow to the workstation is not interrupted because of a blackout.

1.2.2 Safety Regulations for ID Viewer (ID Console and Rack, ID Tablet, ADC QS Client with ID Viewer Software)

The ADC ID Viewer complies with the UL544 standard for "Non Patient Care Medical Equipment". This means that, although it is absolutely safe, patients may not come into direct contact with the equipment.
Therefore, the ADC ID Viewer must be placed outside a radius of 1.5 m around the patient.
There are no user-serviceable parts inside the ADC ID Viewer. Perform no other operations on the ID Viewer than the ones described in the user manual.

1.2.3 Safety Regulations for ID Viewer Monitor and PC

It is not necessary for the user to buy the monitor offered by AGFA. He may use / buy his own monitor. If he does, it should comply with certain criteria to ensure that it can be safely used in combination with the pedestal with regard to stability and securing method.
The Monitor must be UL listed (UL1950). If the monitor will be placed on the console, the weight shall be less than 18.kg. The used PC must be UL listed accordingly UL1950.

AGFA monitors are fully compliant.
The maximum size of the monitor is 17 inches.
The foot of the monitor should be such that it may be properly secured to the pedestal with the provided tie-wraps. It is the user's responsibility to ensure this.

1.2.4 Safety Regulations for ID Viewer Console

There are no user serviceable parts on the console.
Pay attention when working near the pedestal; the foot projects slightly and could be tripped on.
When rolling the pedestal away from its position, take care not to pull or put any strain on the power lead. The pedestal shelves should not be used as a footrest! If the shelves are re-positioned at a different height, the locking clips should be re-inserted.

If the user prefers to install a monitor other than the one provided / sold by AGFA, he should ensure that it locked to the top shelf of the pedestal at all times, according to the method described in section 1 (Installation) of this manual.
When moving the pedestal, take care to ensure that it remains stable at all times. In particular, the following considerations should be kept in mind: the nature of the floor and any floor-coverings, carpets, etc.; any obstructions such as cables; and any slopes to be negotiated.
Only attach appliances with line voltage equal to that of the ID Viewer.

1.3 ADC QS System Overview

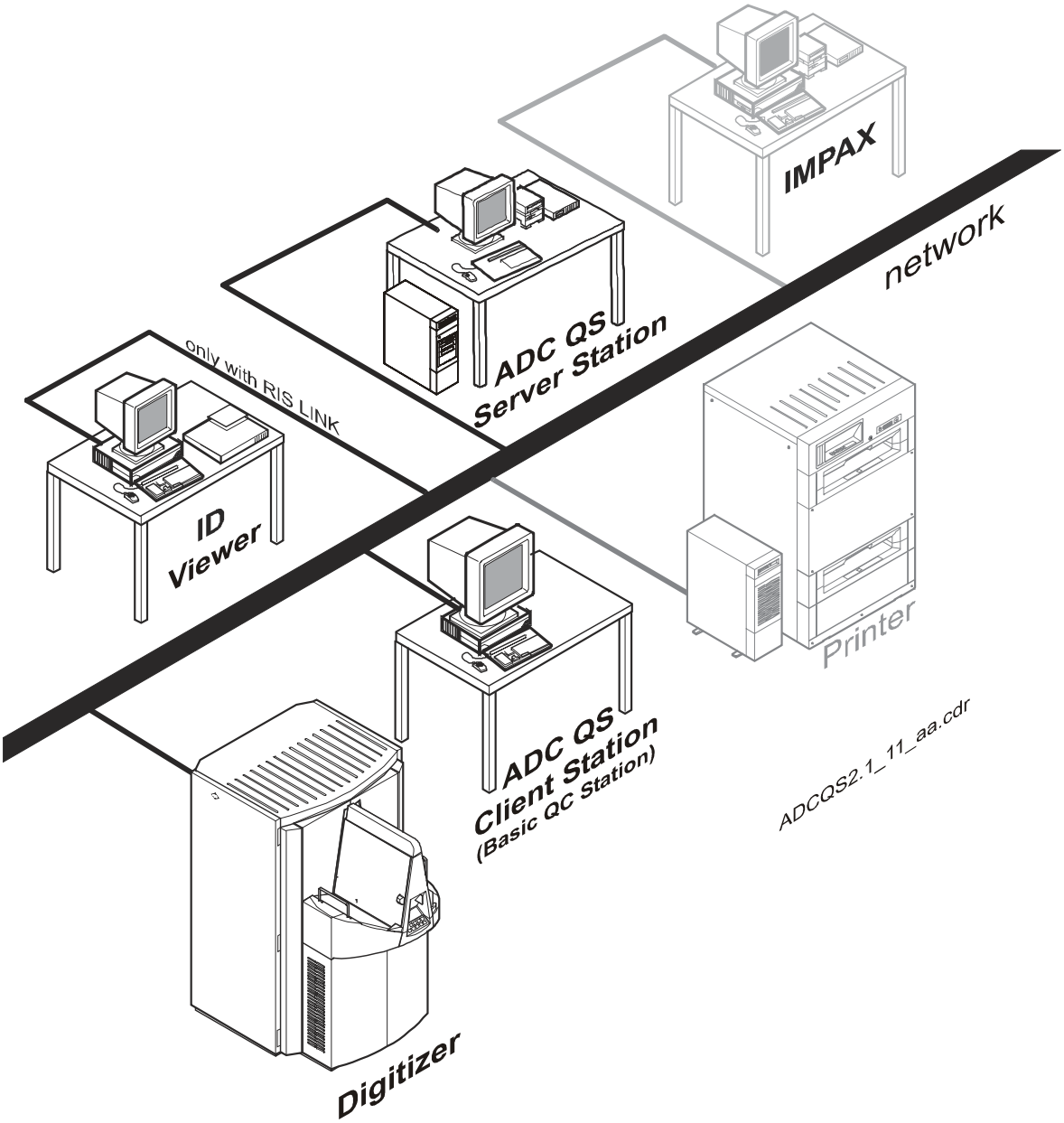


Figure 1

1.4 Transport Path

It must be possible to transport all the components of ADC QS through all hallways and doors up to the installation site!

Minimum Doorwidth: 60 cm

2 ID-Viewer

2.1 Machine Dimensions ID-Viewer

PC:

For dimensions refer to the "Technical Data" of the corresponding PC User Manual.

Cable length ID-Tablet - PC:

2 m.

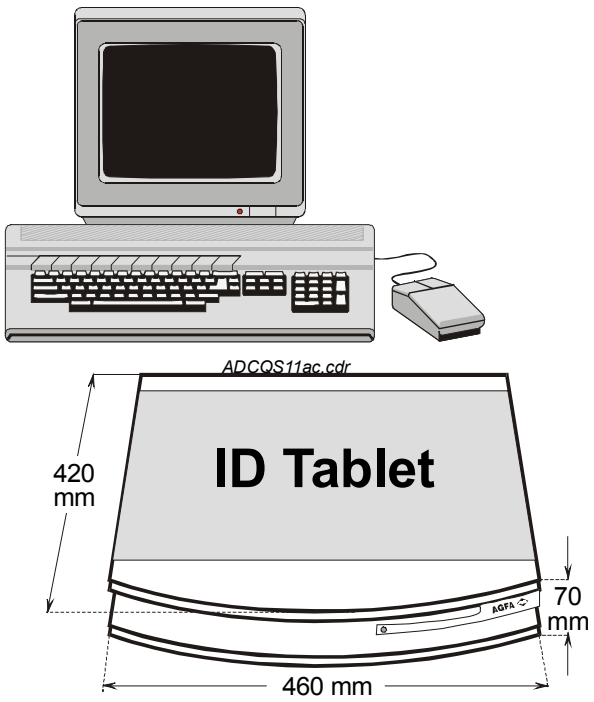


Figure 2

2.2 Machine Dimensions ID Viewer with Console and Cassette Rack

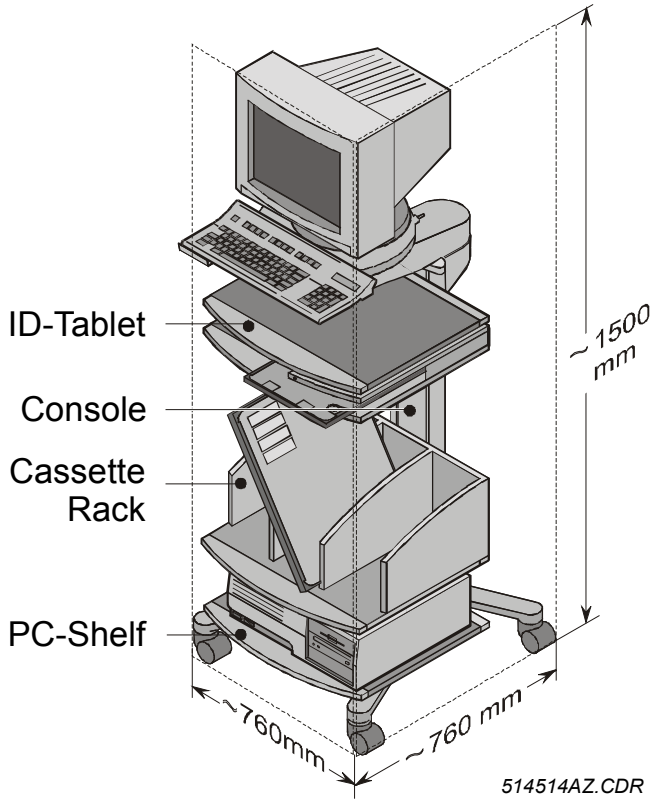


Figure 3

2.3 Technical Data of the ID Viewer

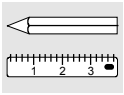
Environmental Requirements of ID Tablet

The ADC ID tablet must be installed at a site where the following operating conditions can be provided:

- Room temperature: minimum 15°C, maximum 30°C
- Relative humidity: at a room temperature of 25 °C, minimum 15 %, maximum 75 %

Power Requirements of ID Tablet

- Mains voltage: 100 - 230 V ac
- Frequency: 50 - 60 Hz
- Max. rated current: 5 A (with appliance outlets loaded to the maximum)
- Classification: Class I (grounded)
- Fuses: Europe: 5 A slowblow /250V
  North America: 5 A slowblow /125V min
- The equipment is suited for continuous operation.



Power Consumption

ID Tablet ≈ 0,5 A

For **Electrical Connections** and **Environmental Requirements for PC** see respective data for ADC QS Client or Server where ID Software is running.

Packing Dimensions

ID VIEWER incl. ID Tablet	L x W x H: 33 x 58 x 55 cm
ID Console	L x W x H: 84 x 84 x 143 cm
Rack	L x W x H: 48 x 44 x 29 cm

Weights

ID Tablet	with box: without box:	≈13 kg ≈ 9 kg
ID Console	with box: without box:	≈ 43 kg ≈ 21 kg

3 ADC QS Client Station

3.1 Technical Data of the ADC QS Client Station

3.1.1 Power Consumption

ADC QS Client Station (PC incl. Monitor)	120V ≈ 3A, 230V ≈ 1,6A

3.1.2 Electrical Connections

Mains connection	
Connection to an outlet	3 x 100 - 120 V / 230 - 240 V, 50 - 60 Hz
External fuse protection	min. 6 A slowblow, max. 16 A slowblow
Connection cable	Euro: 3 x H05VV - 3 x 1.5 mm², with grounded pin plug, cable length 2.5m US: cable SJT, 3 x AWG 18 with NEMA 5-15P, cable length 2.3m
Interface connections	1 x network connection (Ethernet) for RIS LINK (Option)
Serial ports	2 x RS232

3.1.3 Environmental Requirements for the PC:

Temperature	10° -35°C 50° - 95°F
Humidity	8 - 90%

3.1.4 Packing Dimensions

ADC QS Client Station	L x W x H: 61 x 58 x 43 cm
Monitor (max. dimension)	L x W x H: 68 x 80 x 76 cm (max. dimension – depends on monitor type)

3.1.5 Weights

ADC QS Client Station	with box: without box:	≈ 16 kg ≈ 15 kg

4 ADC QS Server Station

4.1 Technical Data of the ADC QS Server Station

4.1.1 Power Consumption

ADC QS Server Station	120V ≈ 4A, 230V ≈ 2A

4.1.2 Electrical Connections

Mains Connection	
Connection to an outlet *	2 x 100 - 120 V / 230 - 240 V, 50 - 60 Hz
External fuse protection	Minimum 6 A slowblow, maximum 16 A slowblow
Connection cable	2 x H05VV - 3 x 1.5 mm² with grounded pin plug, mains cable length approx. 2.3 m
Interface connection	1 x network connection (Ethernet)
Serial ports	3 x RS232

***** If UPS is used, only one mains connection is necessary. All other devices are connected to UPS.

4.1.3 Connection Cables of the Individual System Components

If required, the following network connection cables may be ordered separately for the ADC QS Server Station.

ABC code	Network cable	Length
31D3F	UTP-cable, (unshielded twisted pair connection cable for ethernet 10 base-T)	5 m
31D4H	UTP-cable, (unshielded twisted pair connection cable for ethernet 10 base-T)	50 m
31D5K	UTP-cable, (unshielded twisted pair connection cable for ethernet 10 base-T)	100 m

The Ethernet cables of the system components should be positioned on the floor or along the wall in a cable duct.

4.1.4 Packing Dimensions

ADC QS Server Station	W x D x H / cm:	66 x 59 x 45
Monitor (max. dimension)	W x D x H / cm	68 x 80 x 76 (max. dimension – depends on monitor type)

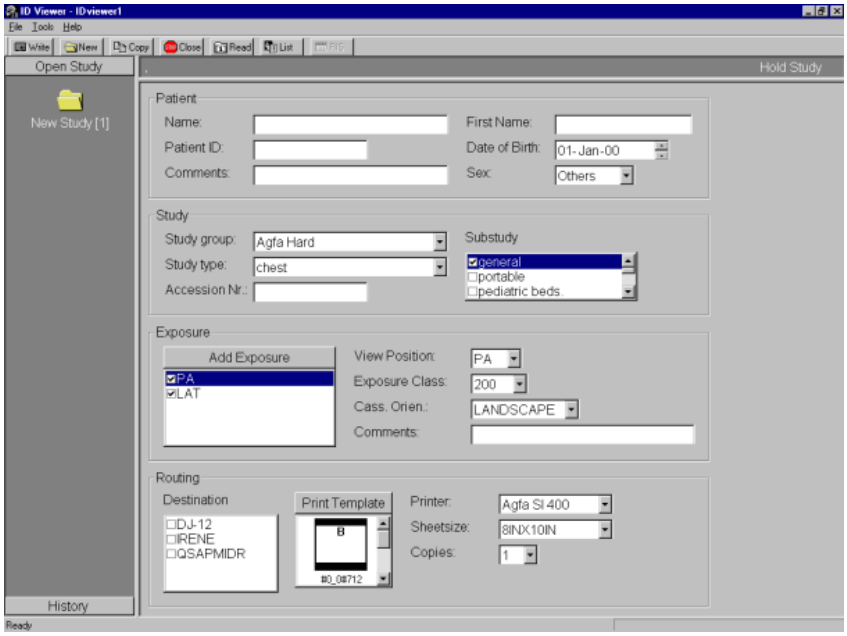
4.1.5 Weights

ADC QS Server Station	with box: without box:	≈ 29 kg ≈ 27 kg

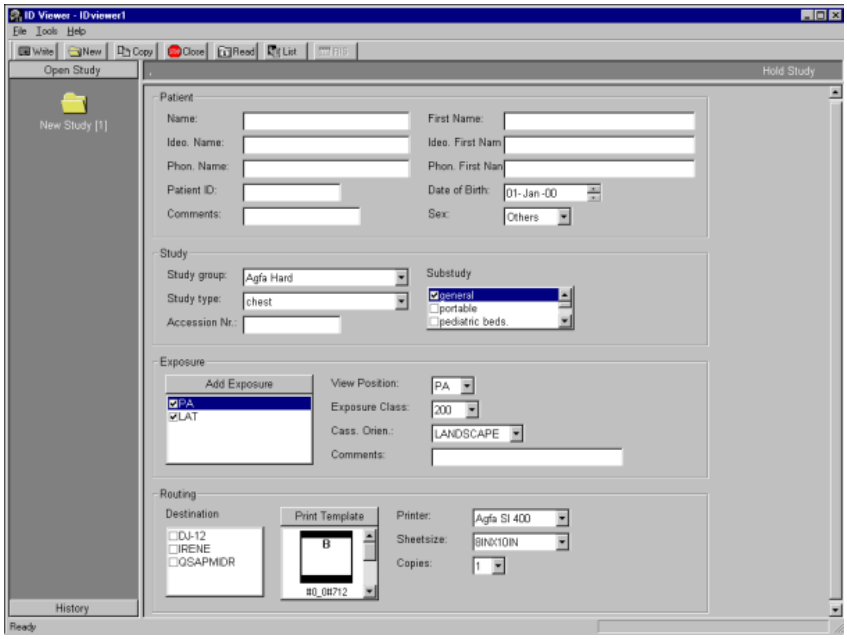
5 GUI - Templates for ID-Viewer

The ID-Viewer GUI is configured by means of predefined templates coming with the ADC QS ID-Viewer software (licensed option). There are six templates for normal screens and one template for 15" touch screens available. A template for 17" touch screens is in preparation.

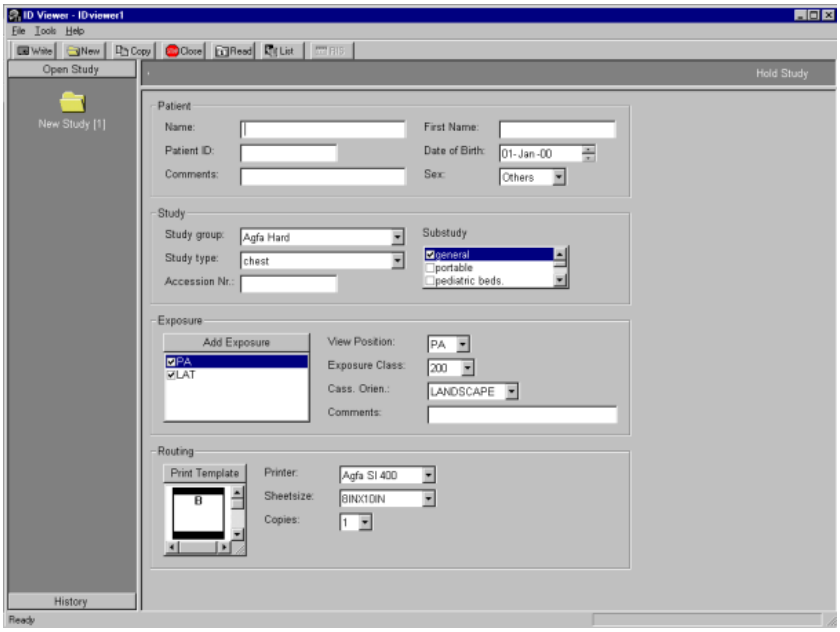
5.1 Mouse controlled Templates



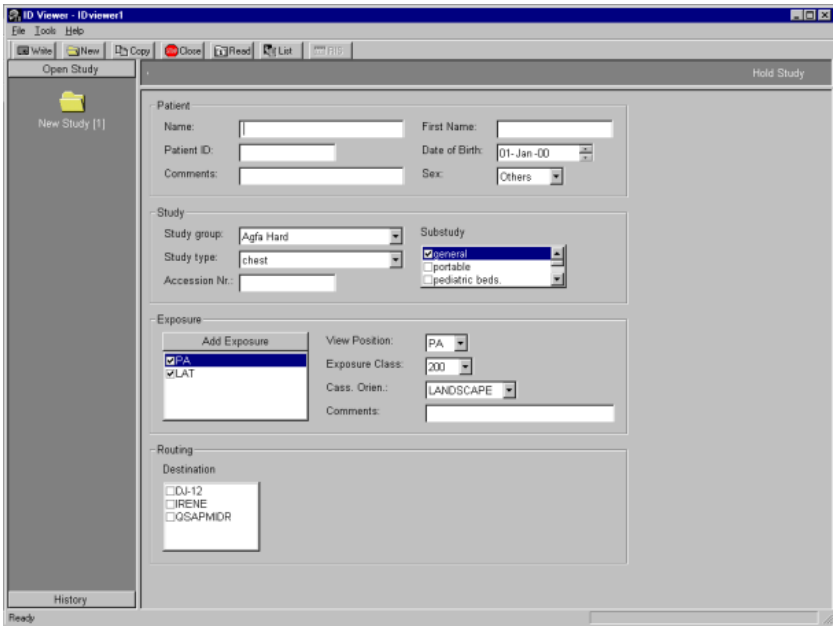
IDVFormDefault.xml



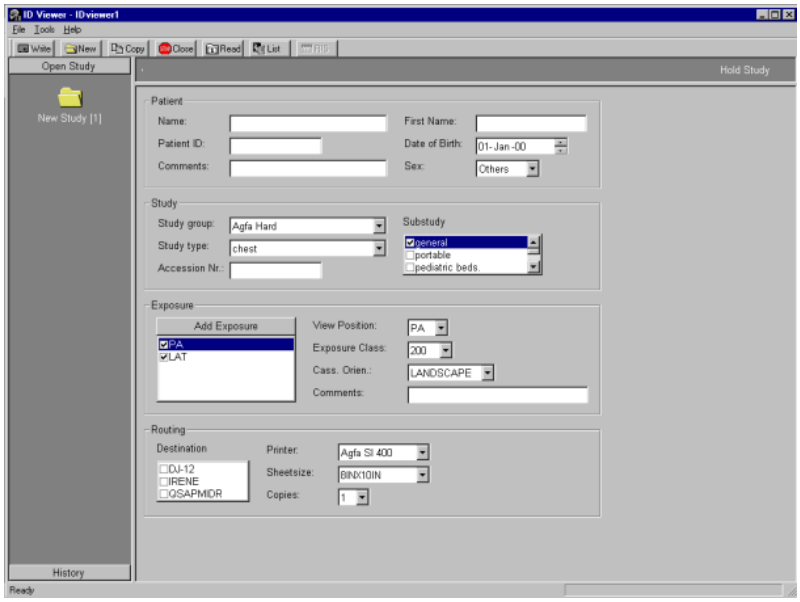
IDFormDefaultJP.xml



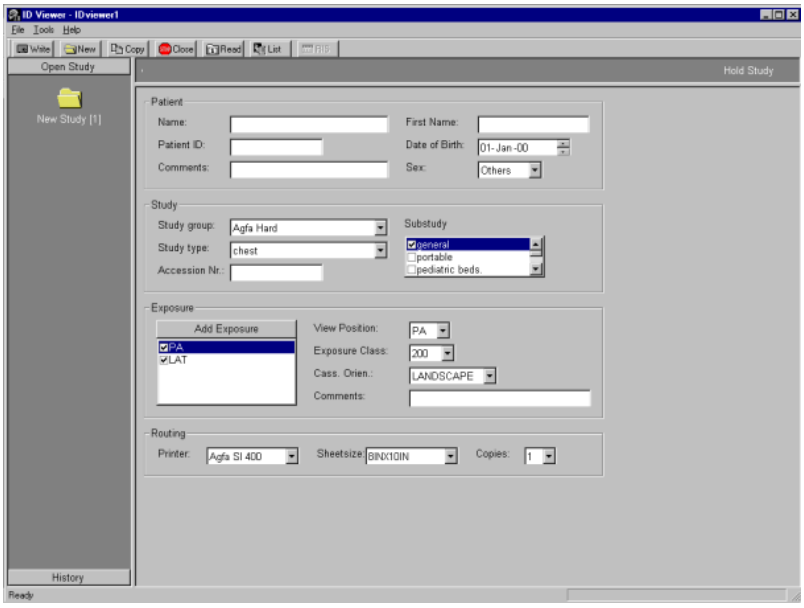
IDVFormNoDestination.xml



IDVFormNoPrint.xml

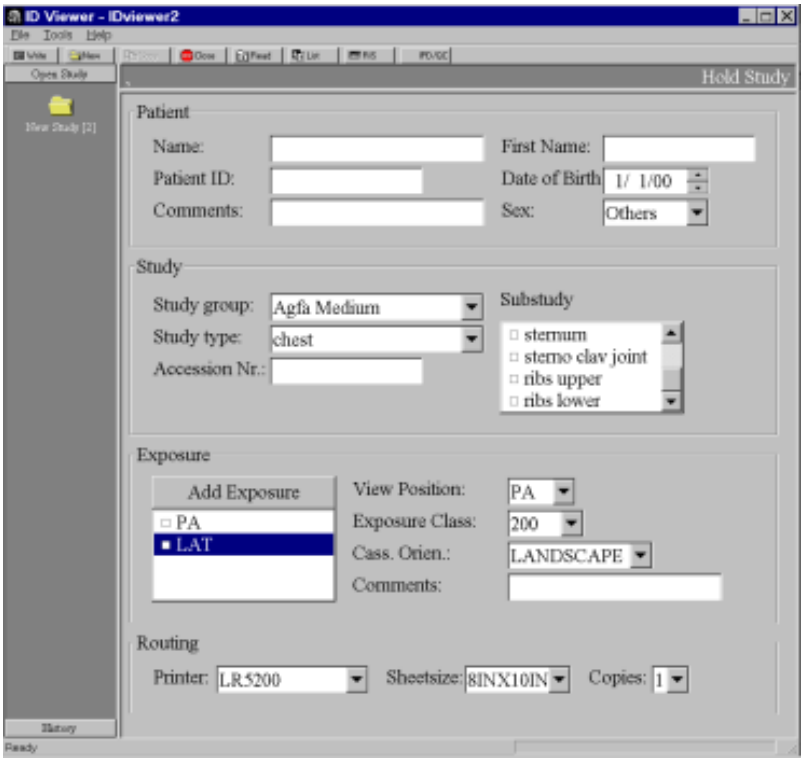


IDVFormNoPrintTemplate.xml

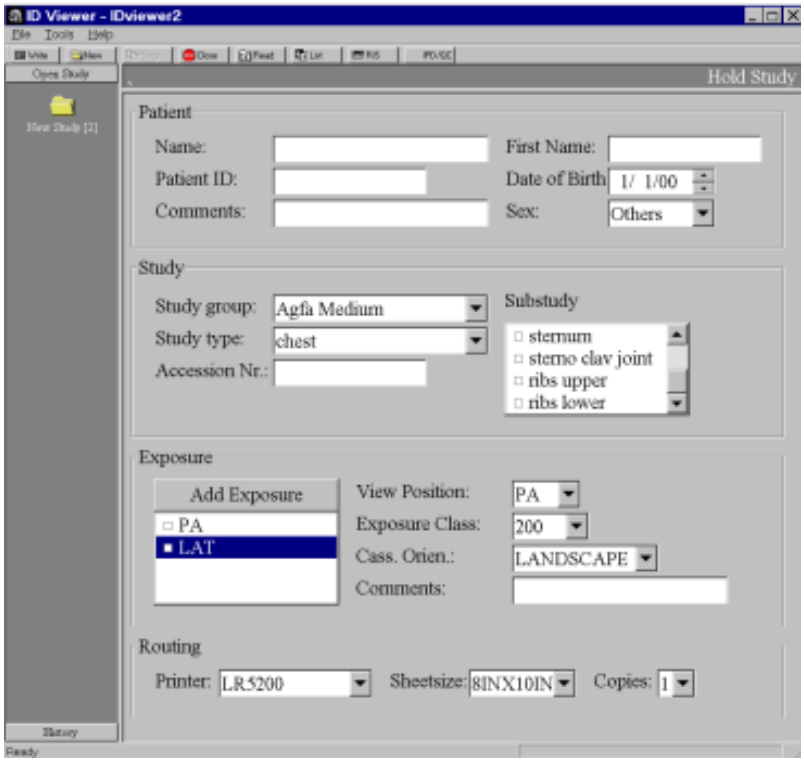


IDVFormSimple Print.xml

5.2 Touch Panel controlled Templates



IDVFormTouch15".xml



IDVFormTouch17".xml

6 Connection to HIS/RIS System

The connection from a hospital HIS/RIS system to the ADC QS system is realized by the ADC QS RIS-Link Toolkit (licensed option).
The configuration of the RIS Link is described in the RIS Link Toolkit User Manual (enclosed in the ADC QS RIS-Link Toolkit option). It gives the information how the data provided by the RIS should look like in respect to format, structure and DICOM mapping. The data the hospital RIS system delivers, have to match to these definitions. Changes on ADC QS side are not foreseen.
To avoid delays during set-up it is absolutely necessary that the customer is aware well in advance what his HIS/RIS system has to deliver.

Please take care that the customer gets the ADC QS RIS-Link user manual together with the installation planning.

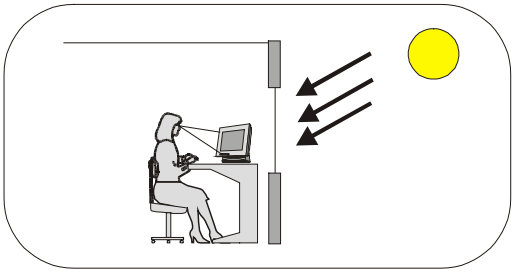
7 Monitors

7.1 Correct Position of Monitors

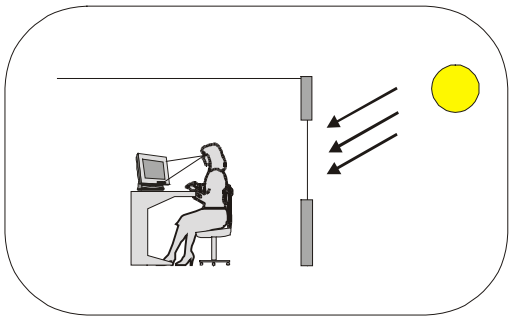
When choosing a site for the ADC QS System, observe the following principles for positioning monitors:

- Prefer working parallel to a window.

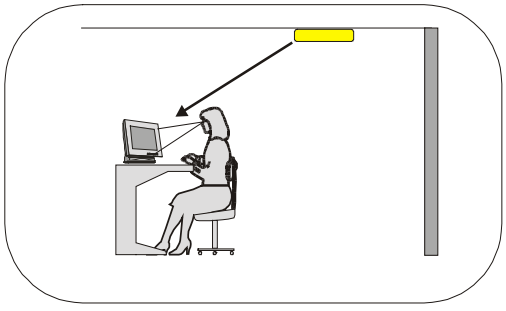
- Avoid sitting opposite a window.



- Avoid reflections through direct sunlight.



- Avoid reflections from a light source in the room (e.g. lamps, light box).



For detailed information on ergonomic working conditions, please consult the respective local regulations.

8 Installation Planning: Checklist

In order to avoid any unnecessary delays during the installation and the machine start-up, the following points of the checklist below should be carried out prior to the installation.
Check and discuss all the required measures for the installation by means of this checklist. Remarks on the individual items may be made on the back of the list.

We ask you to give this checklist to your local A-G representative then.

Customer: .....

Department: .....

System components: .....

.....

.....

.....

.....

Desired installation date: .....

Signed: .....
Signature

Remarks:

p.t.o.

8.1 Checklist

Transport to the installation site, unpacking and removal of the devices from the pallet must be done by the carrier.

	Required external connections		Prepared: yes	no
1.	**ID Viewer**	3 outlets for Client PC, ID tablet and monitor	☐	☐
		Ethernet connection (twisted pair) prepared, if RIS LINK will be installed	☐	☐
2.	**Client Station**	2 outlets for PC and monitor	☐	☐
		Ethernet connection (twisted pair) prepared	☐	☐
3.	**Server Station**	Minimum 2 outlets	☐	☐
		Ethernet connection (MAU or twisted pair) prepared	☐	☐
4.	**Direct Remote Access**	Remote access via Service Host must be guaranteed! (telephone line required)	☐	☐
5.	**Hardcopy printer available via network**	See separate Installation Planning Instructions	☐	☐
6.	**Local network**	For the connection of the system components to the local network please plan an appointment concerning network configuration with the local network administrator.	☐	☐
7.	**Selected ID-Viewer GUI template**	Please have the customer make his selection from the ID-Viewer GUI templates:		
		IDVFormDefault.xml	☐	
		IDVFormDefaultJP.xml	☐	
		IDVFormNoDestination.xml	☐	
		IDVFormNoPrint.xm	☐	
		IDVFormNoPrintTemplate.xml	☐	
		IDVFormSimplePrint.xml	☐	
		IDVFormTouch15".xml	☐	
		IDVFormTouch17".xml	☐	
8.	**RIS connection mode**	Note down connection mode _____		

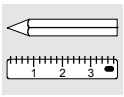
9 Form to fill in the Network Parameters

Digitizer	Example	1st Digitizer	2nd Digitizer	Remarks
hostname	ADCC1			
ip_addr.	192.9.200.199			
Subnet_mask				
default router				
AE_title	ADCC1			
Station Name *	ADCC1			

ADC QS Server Station	Example	1st Server Station	2nd Server Station	Remarks
hostname	ADC_QS			
ip_addr.	192.9.200.202			
subnet_mask				
default router				
AE_title	ADC_QS			
Station Name *	ADC_QS			

ID - Viewer	Example	1st ID-Viewer	2nd ID-Viewer	Remarks
hostname	ID207			
ip_addr.	192.9.200.207			
Subnet_mask				
default router				
Station Name *	ID207			
ID-Viewer GUI template	IDVFormDefault.xml			
ADC QS Server to connect to	192.9.200.202 or ADC_QS			

= main components



ADC QS Client Station	Example	1st Client Station	2nd Client Station	Remarks
hostname	QC206			
ip_addr.	192.9.200.206			
Subnet_mask				
default router				
ADC QS Server to connect to	192.9.200.202 or ADC_QS			

Hard Copy Printer	Example	1st HCP	2nd HCP	Remarks
hostname	MG1			
ip_addr.	192.9.200.201			
Subnet_mask				
default router				
AE_title	ADC_LR1			
Station Name *	ADC_LR1			

PACS Archive Station	Example	1st Archive Station	2nd Archive Station.	Remarks
hostname	SIMAS1			
ip_addr.	192.9.200.101			
Subnet_mask				
default router				
AE_title	SIMAS1			
Station Name *	IMPAX			

*) Friendly name (Station name) appears in the USER interface

RIS/HIS Server	Example	RIS/HIS Server	Remarks
hostname	BROKER		
ip_addr.	192.9.200.212		
Subnet_mask			
default router			
AE_title	BROKER		
RIS connection mode	DICOM Worklist		

Site filled in by Date

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